

FORTUNA.

Discovered by Mr. J. R. Hind, at the South Villa Observatory.

"On August 22d, at 11^h 30^m mean time, I detected another planet, equal in brightness to a star of the 9th magnitude, near the northern limit of our ecliptical chart for 22^h of R.A. It was micrometrically compared with Weisse xxii. 493, and the motion westward was appreciable in about twenty minutes. The star has been meridionally observed at Greenwich.

"Mr. Bishop having deputed me to name this (our sixth) planet, I have proposed to call it *Fortuna*. The following observations have been carefully reduced, and will I believe prove pretty exact:"—

1852.	Green. M.T. h m s	App. R.A. h m s	App. N.P.D. ° ' "
Aug. 22	11 35 39.4	22 22 29.75	97 32 18.9
	12 27 16.3	27.89	30.0
26	9 17 31.2	22 19 3.92	97 53 33.1
Sept. 8	11 29 15.2	22 7 49.58	99 6 35.7
	11 38 31.6	49.30	37.0

LIVERPOOL.				Equatoreal.			(Mr. Hartnup.)					
	Green. M.T.			R.A.	Log $\frac{p}{P}$	N.P.D.	Log $\frac{q}{P}$	Star of Comparison.				
1852.	h	m	s	h	m	s	°	'	"			
Aug. 26	13	55	2.8	22	18	53.48	+8.254	97	54	44.2	-9.9370	B.A.C. 7784
	14	18	58.6			52.24	.335			51.3	.9349	— —
	14	42	54.3			51.19	.398			57.2	.9292	— —
30	12	7	5.3	22	15	24.82	+7.475	98	16	50.4	-9.9428	— 7773
	12	32	0.2			23.72	.865			56.8	.9422	— —
Sept. 1	10	4	47.9	22	13	44.09	-8.214	98	27	39.1	-9.9399	— —
	10	19	45.1			43.56	.144			42.4	.9409	— —
2	10	5	59.5	22	12	51.90	-8.188	98	33	16.1	-9.9408	— —
3	10	20	57.0			51.49	7.111			20.9	.9417	— —
	10	48	3.7	22	11	58.82	-7.876	98	39	2.7	-9.9436	— —
	11	3	1.1			58.28	.691			6.0	.9441	— —
13	12	17	1.4	22	4	3.59	+8.203	99	32	28.0	-9.9440	— 7670
	12	39	27.6			2.69	.292			35.1	.9418	— 7773
16	12	32	40.3	22	2	3.49	+8.315	99	46	46.4	-9.9418	— —
	12	47	37.8			3.22	.360			49.7	.9401	— —

Assumed *Mean* Places of the Stars for 1852.0.

	R.A. h m s	N.P.D. ° ' "	Authority.
B.A.C. 7784	22 12 24.49	98 33 43.7	Greenwich 12-years Catalogue.
— 7773	22 9 1.21	98 31 5.0	Greenwich Observations.
— 7670	21 55 29.22	97 14 7.7	Greenwich 12-years Catalogue.

HAMBURG.			(M. C. Rümker.)					
1852.	Hamburg M.T.			R.A.	L. Fact.	Decl.	L. Fact.	Comps.
Sept. 2	h	m	s	°	Par.	°	Par.	
	9	22	31.1	333 13 51.7	-9.4851	-8 32 54.8	9.9396	13
	11	23	56.3	12 37.2		33 23.7	9.9464	Mer.
3	9	27	42.8	332 60 47.2	-9.4515	8 38 34.4	9.9409	18
	11	19	9.0	59 45.8		38 59.0	9.9467	—
5	8	58	3.0	332 35 39.2	-9.5179	8 49 40.3	9.9395	11
	11	9	36.6	34 32.4		50 6.5	9.9475	—
6	9	36	5.7	332 22 53.8	-9.3585	8 55 10.9	9.9437	6
	11	4	41.2	22 6.9		55 30.6	9.9479	—
7	8	38	50.3	332 11 4.0	-9.5444	9 0 23.3	9.9389	7
	11	0	6.6	9 55.5		1 0.9	9.9482	—
8	9	2	55.8	331 58 53.9	-9.4558	9 6 1.9	9.9423	10
	10	55	23.1	57 59.0		6 21.9	9.9485	—
9	9	0	21.0	331 47 16.3	-9.4494	9 11 1.7	9.9427	6
	10	50	40.3	46 14.9		11 35.8	9.9489	—
11	9	2	16.7	331 24 12.8	-9.4135	9 21 37.0	9.9443	5
	10	41	18.6	23 40.5		21 58.5	9.9496	—
13	10	19	16.2	331 2 7.4	-8.5272	9 31 47.8	9.9495	2
	10	31	59.7	1 52.5		31 58.3	9.9502	—
14	8	42	25.1	330 51 54.9	-9.4285	9 36 40.0	9.9448	1
	10	27	22.9	51 39.0		36 50.3	9.9505	—
16	8	29	34.4	330 32 54.5	-9.4427	9 45 50.5	9.9450	4
	10	18	12.9	32 1.9		46 13.6	9.9511	—
17	8	51	50.3	330 23 32.9	-9.4786	9 50 31.8	9.9442	4
	10	13	40.3	22 49.6		50 48.6	9.9514	—
21	9	55	44.6	329 49 42.4		10 7 35.1	9.9525	—
22	11	49	20.3	329 41 57.2	+9.4800	10 11 43.1	9.9452	4
25	9	38	15.2			10 21 50.4	9.9534	—
Oct. 2	9	8	50.3	328 54 43.7		10 41 24.5	9.9545	—
3	11	5	13.8	328 52 24.1	+9.4848	10 43 46.5	9.9468	5
8	8	44	51.1	328 48 46.5		10 51 24.9	9.9551	—
9	8	40	50.2	328 49 30.9		10 52 29.8	9.9552	—
12	8	29	30.4	328 54 29.3		10 54 48.0	9.9554	—
16	8	14	41.6	329 8 15.4		-10 54 55.9	9.9557	—

Mean Places for 1852.0, of Stars compared with *Fortuna*, deduced from observations with the Hamburg Meridian Circle.

h	R.A.	Obs.	Decl.	Obs.	h	R.A.	Obs.	Decl.	Obs.
m	s		°		m	s		°	
21	51	6.13	3 -10 52 59.4	3	22	7	9.53	3 -9 42 25.0	3
21	53	57.14	2 10 35 8.2	2	22	7	45.19	1 9 7 51.1	1
21	59	53.53	1 10 47 53.9	1	22	9	3.48	2 9 46 32.1	2
22	2	30.56	2 10 6 49.1	2	22	11	20.99	1 8 32 13.1	1
22	3	16.99	1 8 43		22	13	2.46	1 9 30 24.2	1
23	3	24.08	1 8 43		22	14	28.75	1 -8 13 40.2	1
22	4	46.71	2 -8 44 28.2	2					

Elements.

By Mr. E. Vogel, of Mr. Bishop's Observatory, South Villa,
Regent's Park.

M		321	13	12 ⁰ 08	1852, Sept. 10 ⁰ Greenwich M.T.
π		30	23	29 ¹ 12	} Mean Equinox, Jan. 0.0, 1852
Ω		211	35	25 ² 26	
i		1	32	13 ¹ 13	
ϕ		9	3	55 ⁶ 7	
Log e		9	1974538		
Log a		0	3875506		
Log μ		2	9686807	$\mu = 930''$	423642

These elements, which are deduced from the observations at South Villa, August 22; at Greenwich, Aug. 30; and at South Villa, Sept. 8, exactly represent the middle observation.*

MELPOMENE.

Discovered by Mr. J. R. Hind, at the South Villa Observatory.

“On June 24th, at 12^h 30^m mean time, I remarked an object resembling a star of the 9th magnitude in a part of the heavens in 18^h R.A., which, from previous acquaintance with the vicinity, I was satisfied must be a new planet, the other members of the group between *Mars* and *Jupiter* all occupying different positions. Observations with the wire-micrometer indicated a sensible change of R.A. in 15^m. The Astronomer Royal having been requested by Mr. Bishop to name the newly discovered planet, has called it *Melpomene*. I remarked on the first night, and on several subsequent occasions, a strong yellowish colour about the light of this object, quite different from the appearance of the telescopic stars in the same field of view.”

“The following are the positions of *Melpomene*, resulting from observations with the wire-micrometer. The comparison-stars up to July 3 have been observed by Mr. Airy, who has kindly favoured me with the resulting mean places which have been used in my reductions:”—

	Green. M.T.	App. R.A.	App. N.P.D.
1852.	^h ^m ^s	⁰ ['] ["]	⁰ ['] ["]
June 24	12 50 19.7	18 12 59.92	98 15 52.0
	13 17 45.4	58.80	54.7
	14 3 28.0	56.67	58.2
26	10 16 29.0	18 11 0.94	98 20 57.6
29	10 11 45.5	18 7 52.23	98 30 0.1

* Mr. Vogel sent at the same time an approximate Ephemeris from Sept. 14 to Oct. 14, which is omitted here, as being out of date. The Editor fears that the blame of delay on this occasion rests with him, but the Ephemerides not contained in the *Nautical Almanac* are to be found in the *Astronomische Nachrichten*.